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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,060	05/26/2006	Sandrine Dulac	007035.00008	1280

22908 7590 07/22/2009

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EXAMINER	
SAVAGE, JASON L	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
07/22/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,060	DULAC ET AL.	
	Examiner	Art Unit	
	JASON L. SAVAGE	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-6,8-12,14-16 and 18-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6,8-12,14-16 and 18-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-6, 8-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (JP 200303132) in view Shinji et al (JP 08-120389 English Machine Translation).

Ueda teaches an aluminum core material comprising Y between 0.05-1.0% and other elements such as Mn, Ti, Zr, V, Ni, Co and other elements within the ranges claimed with the balance being Al which would be in an amount well over 80% (abs). Ueda further teaches that a core alloy of 3003 aluminum was used and that erosion control elements were added individually and in combination to measure the erosion of the core (par [0023-0027]). 3003 aluminum has a nominal composition comprising Cu between 0.05-0.2%, Si 0.6%, Fe 0.7%, Mn 1.0-1.5% and Zn 0.10% which are all elements which may be employed in the claimed aluminum alloy and all fall wihin the claimed ranges for each element. Furthermore, Ueda's Sample No. 9 and 10 exemplify embodiments wherein the errosion control element is Y in amounts of 0.04 and 0.12 respectively which would meet the claimed alloy composition of the present invention.

Ueda further recites that the core metal is coated with a brazing aluminum alloy such as Al-Si with Si being between 6-13.5% by weight (abs). Ueda is silent to the brazing alloy containing one of the claimed elements however it teaches that the braze

alloy may contain other elements in a range which does not check an effect of the recited invention such as Mg in an amount of 0.5-2.5% (par[0011]).

Shinji teaches an aluminum core material have a surface layer comprising a brazing selected from alloys such as Al-Si, Al-Si-Mg and Al-Si-Mg-Bi alloys (claim 7). Shinji further teaches thata variety of brazing alloys may be applied to the aluminum core such as those typically used for brazing/wax material such as the Al-Si-Mg-Bi alloy (par[0028]). It would have obvious to one of ordinary skill in the art at the time of the invention to have employed a typical brazing alloy such as an Al-Si-Mg-Bi alloy for the brazing material for the aluminum core of Ueda with a reasonable expectation of success since they are know to be useful as brazing alloy materials. Regarding the limitation that the recited element modify the surface tension of the alloy, Bi would inherently have the same ability to modify the surface tension of the alloy as that claimed by Applicant.

Regarding claims 2 and 11-12, Ueda recites the silicon content in the brazing alloy overlaps and anticipates the range claimed.

Regarding claims 4 and 14, Ueda teaches the brazing alloy may be clad by rolling with the basic aluminum core (par[0023]).

Regarding claims 5, 8-10 and 15-16, Ueda is silent to the braze part comprising particles which are possibly coated by a polymer. However, as recited by Applicant in paragraph [19] of the instant Application, it would have been within the purview of one of ordinary skill in the art to have added the brazing alloy in the form of particles which may be coated with a resin binder.

Regarding claims 6-7 and 11 Ueda teaches the yttrium content which overlaps and anticipates the claims ranged between 0.05-0.5 (abs.).

Claim Rejections - 35 USC § 103

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Ueda (JP 200303132) in view of in view Shinji et al (JP 08-120389 English Machine Translation) as applied to claims 1-2, 4-6, 8-12 and 14-17 above, further in view of Baba et al. (JP 58-040495).

The prior art teaches what is set forth above but is silent that Bi may be added to the core alloy of Ueda. Baba teaches that that an aluminum core material comprising Bi between 0.005-0.3 and other elements such as Mn and Be which provides a heat exchanger component having improved corrosion resistance (abs.). The Bi content is taught to be between 0.005-0.3% which overlaps the range claimed by Applicant.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have added other known additives such as Bi as disclosed by Baba (JP 2000-303132) to the Al-Y core of Ueda (US 200303131) with a reasonable expectation of success of providing a component having enhanced corrosion resistance.

Response to Arguments

Applicant's arguments filed 5-5-09 have been fully considered but they are not persuasive.

Applicant argues that the prior art does not meet the presently claimed invention since the teaching of additives such as Be in Ueda is directed to elements which are added to the core. As such Applicant states Ueda does not teach or suggest adding any of the claimed elements to the brazing alloy. Applicant further asserts that Ueda recites any other elements present cannot confer any new effect on the invention on page 6, line 4 of the reference.

However, the reference positively recites the brazing alloy 'may contain other elements in the range which does not check an effect of this invention' (par[0010]). In other words, the brazing alloy may contain additional elements, such as Mg, which do not inhibit/diminish the effect/properties of the invention. The addition of Mg is disclosed as providing corrosion/oxidation resistance, as such the interpretation by Applicant that other elements cannot confer any new effect would appear to be in error.

As set forth in the rejection above, the prior art of Shinji teaches that brazing alloys such as Al-Si-Mg-Bi are typically employed with aluminum core materials. As such, it would have been obvious to have substituted brazing alloys such as Al-Si-Mg-Bi which are known for use with aluminum core materials for the brazing alloy of Ueda with a reasonable expectation of success.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. SAVAGE whose telephone number is (571)272-1542. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Savage/
Examiner
7-17-09

/JENNIFER MCNEIL/
Supervisory Patent Examiner, Art Unit 1794